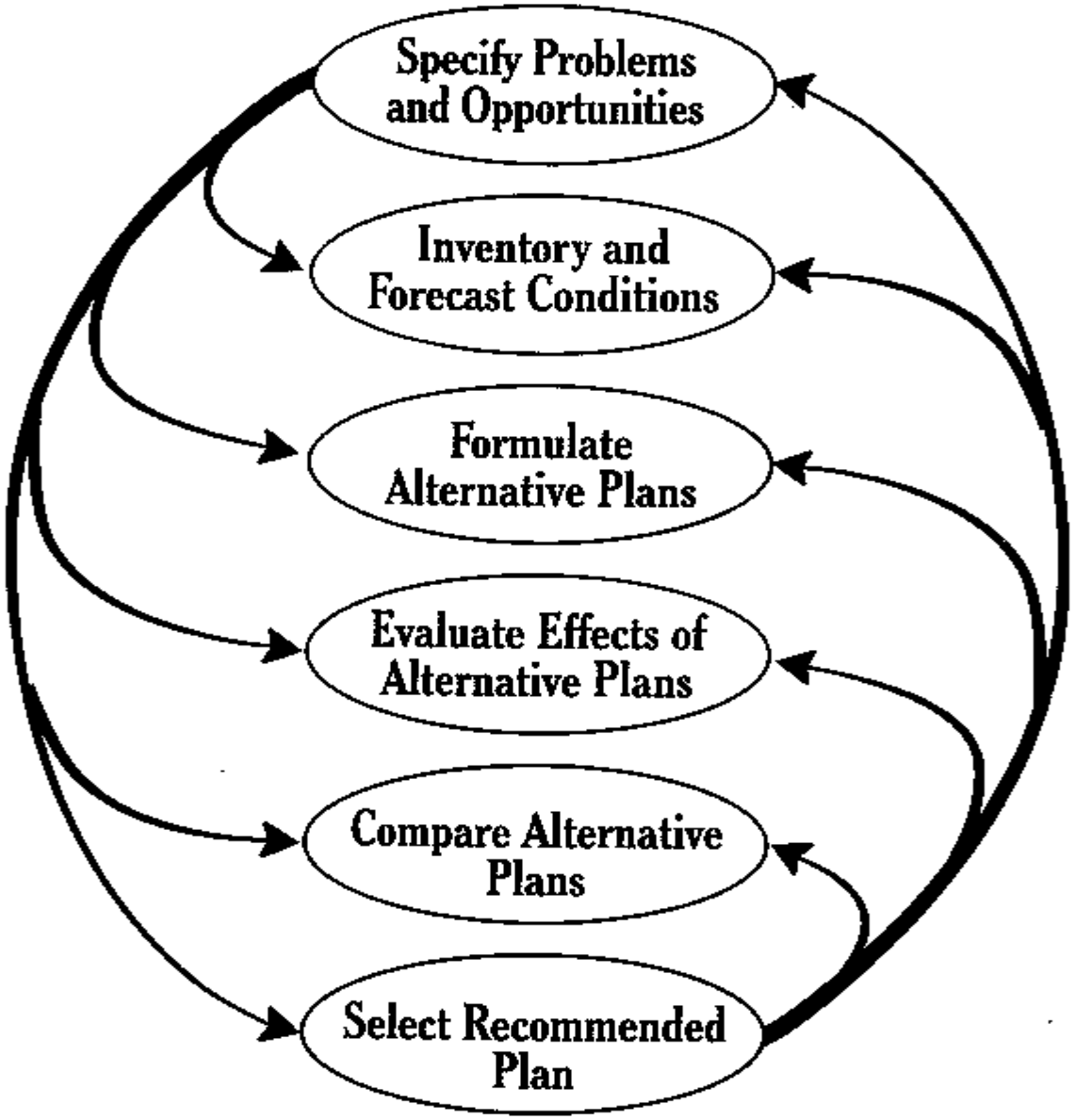
Introduction to Planning Workshop

Inventory and Forecast

South Pacific Division

PLANNING PROCESS



INVENTORY AND FORECAST

- Data and information
- Conditions
- Comparisons
- Uncertainty

INVENTORY AND FORECAST

- Data and information
- Conditions
- Comparisons
- Uncertainty

Luzerne County Motel Information

Ave Price	# Rooms Rented	Occupancy Rate	Month	Year	Total Revenue
47.4	38663.0	44.7	1.0	1994.0	1831700
47.7	42989.0	55.0	2.0	1994.0	2048783
47.9	51781.0	59.8	3.0	1994.0	2480207
49.6	57291.0	68.4	4.0	1994.0	2838751
51.0	57662.0	66.6	5.0	1994.0	2938876
52.4	61162.0	73.0	6.0	1994.0	3205021
54.7	65726.0	76.0	7.0	1994.0	3595580
52.4	64746.0	74.8	8.0	1994.0	3390966
52.3	59381.0	70.9	9.0	1994.0	3102646
50.2	61900.0	71.5	10.0	1994.0	3108298
49.4	48509.0	57.9	11.0	1994.0	2396383
51.5	36044.0	41.7	12.0	1994.0	1856309
49.4	38381.0	44.4	1.0	1995.0	1896194
49.9	40839.0	52.3	2.0	1995.0	2038796
49.1	49167.0	56.8	3.0	1995.0	2416308
49.0	52418.0	62.6	4.0	1995.0	2569947
51.8	55762.0	64.4	5.0	1995.0	2889429
53.8	58973.0	70.4	6.0	1995.0	3174254
55.9	66540.0	76.9	7.0	1995.0	3722476
53.6	69082.0	79.8	8.0	1995.0	3704830
52.5	68002.0	78.4	9.0	1995.0	3571591
51.3	67207.0	75.0	10.0	1995.0	3450343
50.5	53344.0	61.5	11.0	1995.0	2691294
50.0	41795.0	46.6	12.0	1995.0	2090972
50.1	42276.0	47.2	1.0	1996.0	2117539
52.1	45526.0	56.2	2.0	1996.0	2373632

INVENTORY

- Much data can be collected.
- Not all data provides important or useful information.

INVENTORY AND FORECAST

- Data and information
- Conditions
- Comparisons
- Uncertainty

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2	COLUMN 3 2003	COLUMN 4	COLUMN 5
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4	COLUMN 5
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE					
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

INVENTORY AND FORECAST

- Five Conditions:
  - Existing condition.
  - Historic condition.
  - Future without condition.
  - Future with condition.
  - Target.

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE			**EXISTING CONDITION**		
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE		**HISTORIC CONDITION**	EXISTING CONDITION		
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE		HISTORIC CONDITION	EXISTING CONDITION	**FUTURE WITHOUT CONDITION**	
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE		HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	**FUTURE WITH CONDITION**
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE	**TARGET**	HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	FUTURE WITH CONDITION
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					

INVENTORY AND FORECAST FIVE CONDITIONS

- Inventory
  - Historic condition
  - Existing condition
- Forecast
  - Future without condition
  - Future with condition (Step 4)
- Target

FORECAST

- A set of assumptions, unified by a theme, that describes a future condition.
- Assumptions - What factors will affect the future? In what ways?
- Theme - “scenario”
  - Most likely case.
  - Best case/worst case.
  - Other themes.
- Period of analysis.
- Numeric or non-numeric measurement.

WITHOUT CONDITION

- Forecast of the future.
- “Without” what? Without any action to solve the problem at hand.
- Forecast what?
  - Objectives and constraints.
  - Other significant resources.

WITHOUT CONDITION

- Does NOT mean no change in future.
- Most likely condition if different futures are possible.
- Without condition = NEPA “no action”.
- Why? Effects (impacts) are based on comparisons of “with” and “without” conditions (P&G 1.3.6).

INVENTORY AND FORECAST

- Data and information
- Conditions
- Comparisons
- Uncertainty

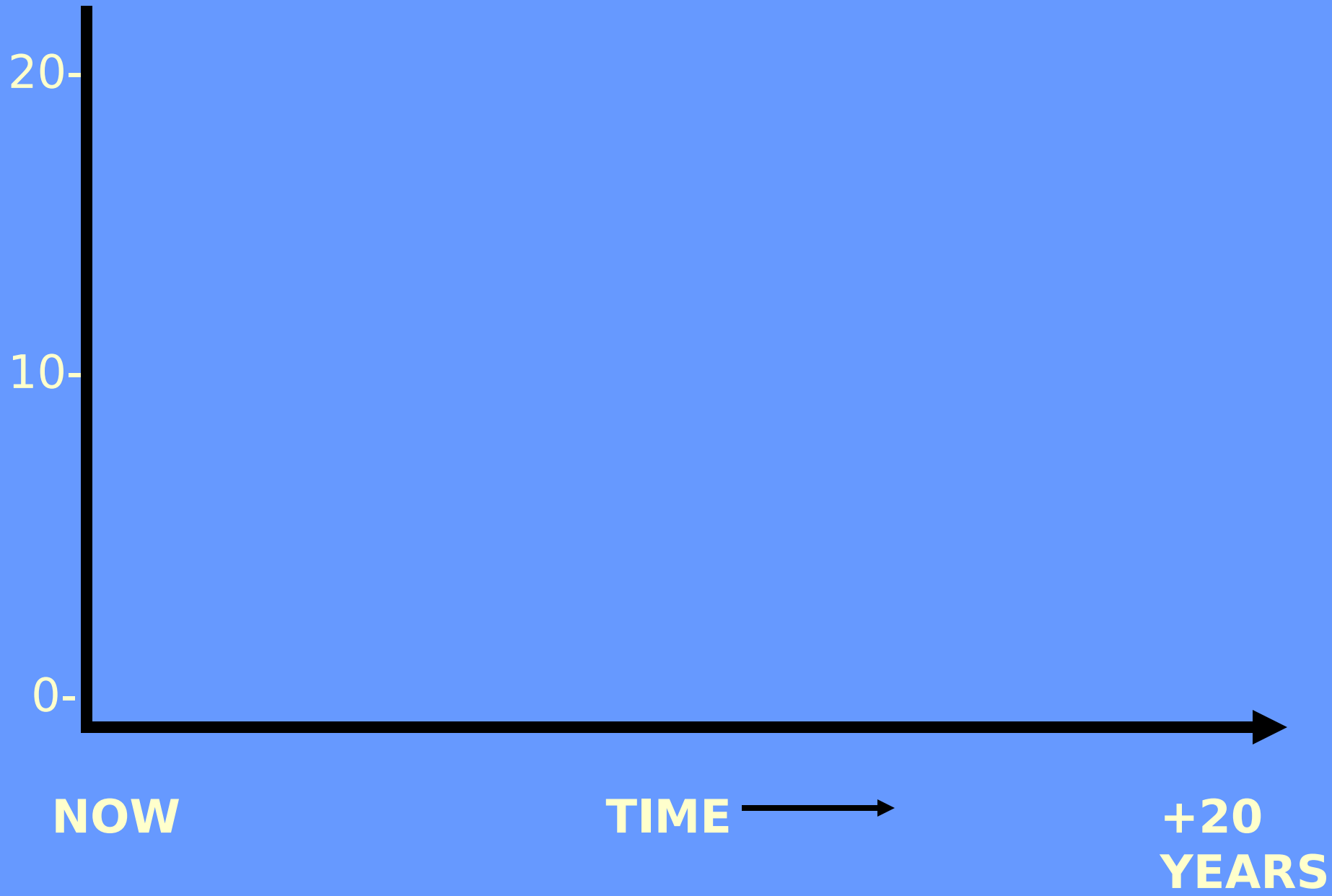
INVENTORY AND FORECAST

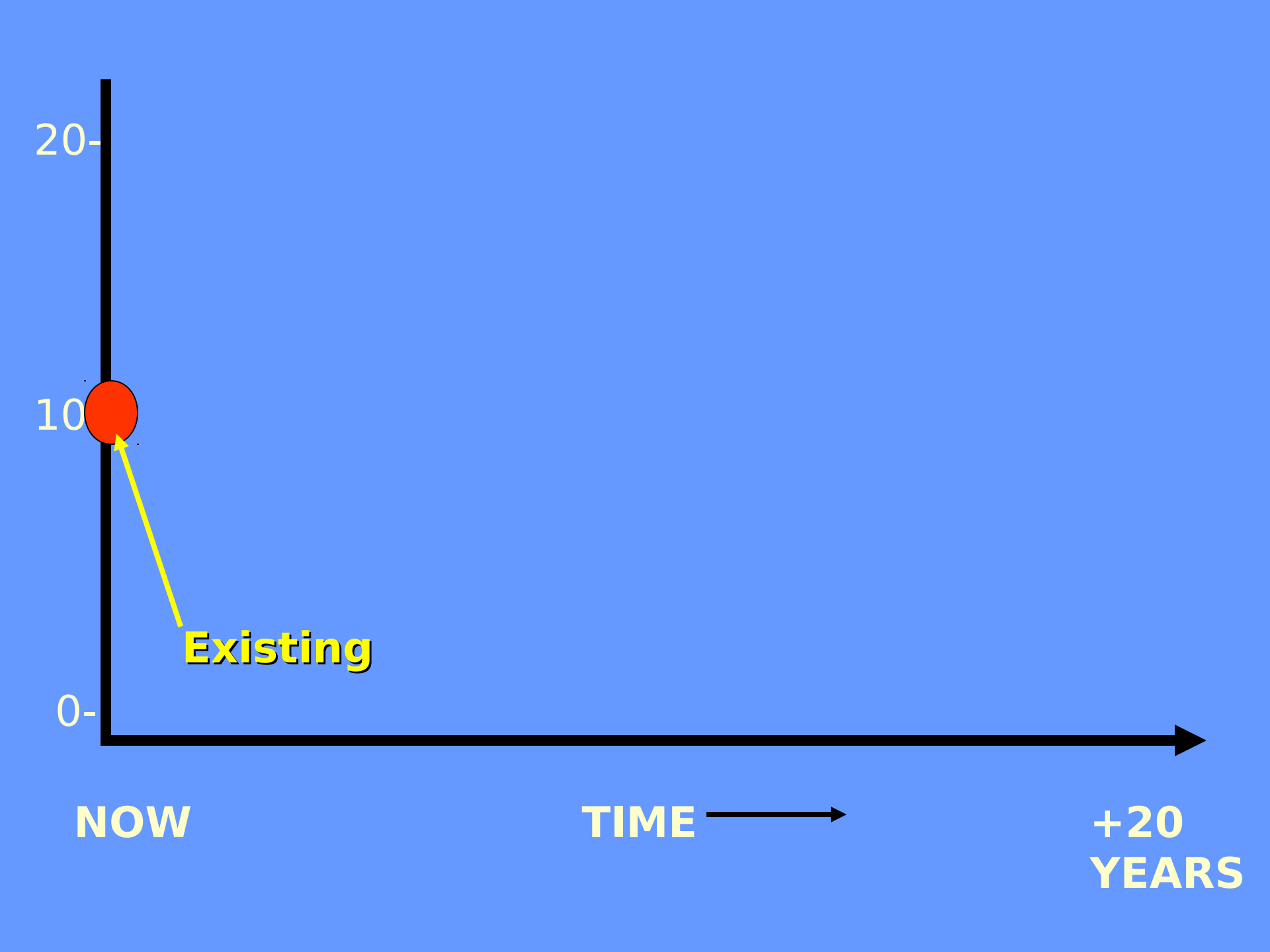
- Three types of comparisons:
  - With-and-without analysis (Col. 5 - Col.4).
  - Before-and-after analysis (Col. 5- Col. 3).
  - Gap analysis (Col. 5- Col. 1).

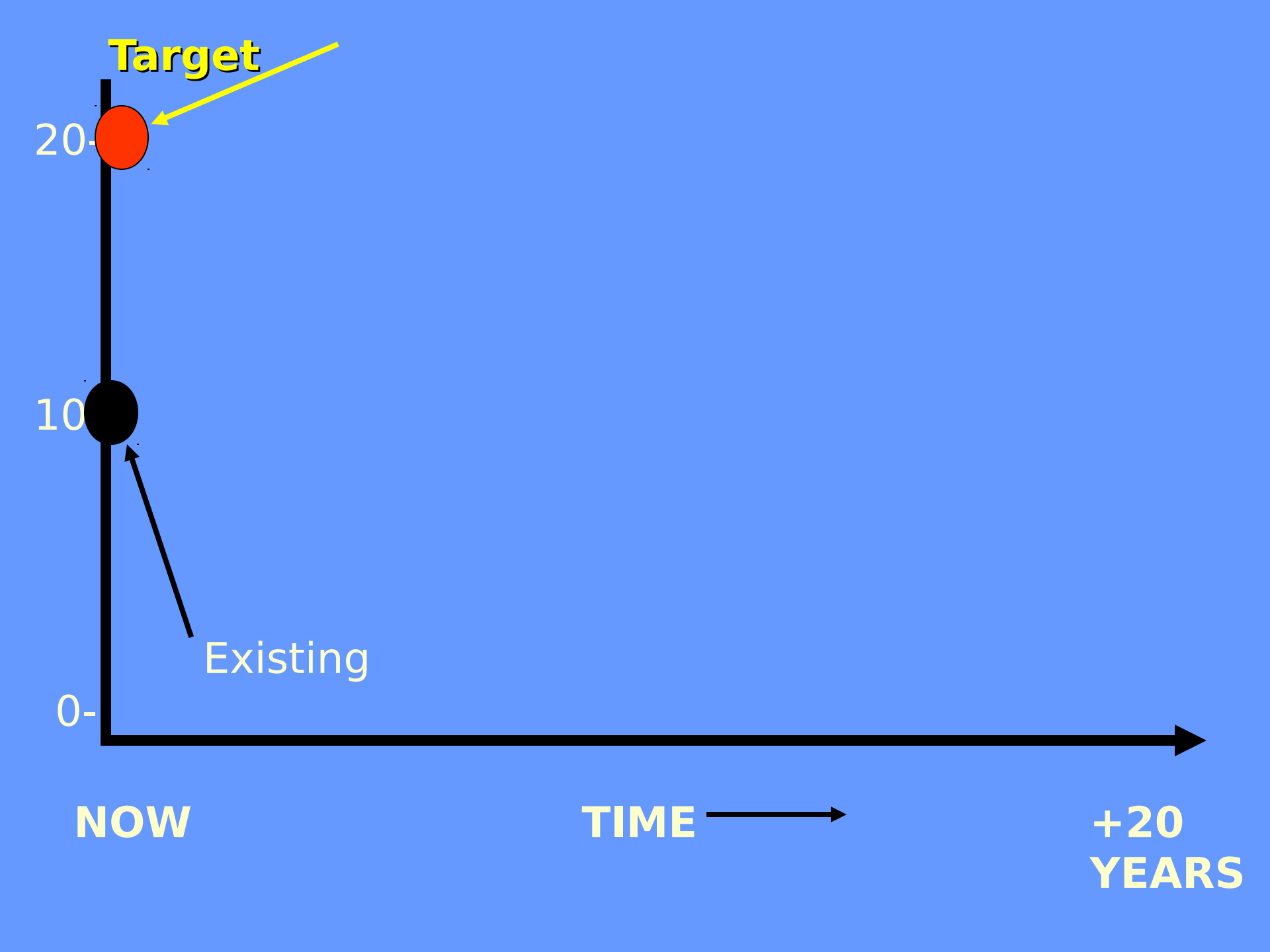
	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE	TARGET	HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	FUTURE WITH CONDITION
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE				**WITH AND WITHOUT ANALYSIS**	
HOME ADDRESS					
CAR MODEL					

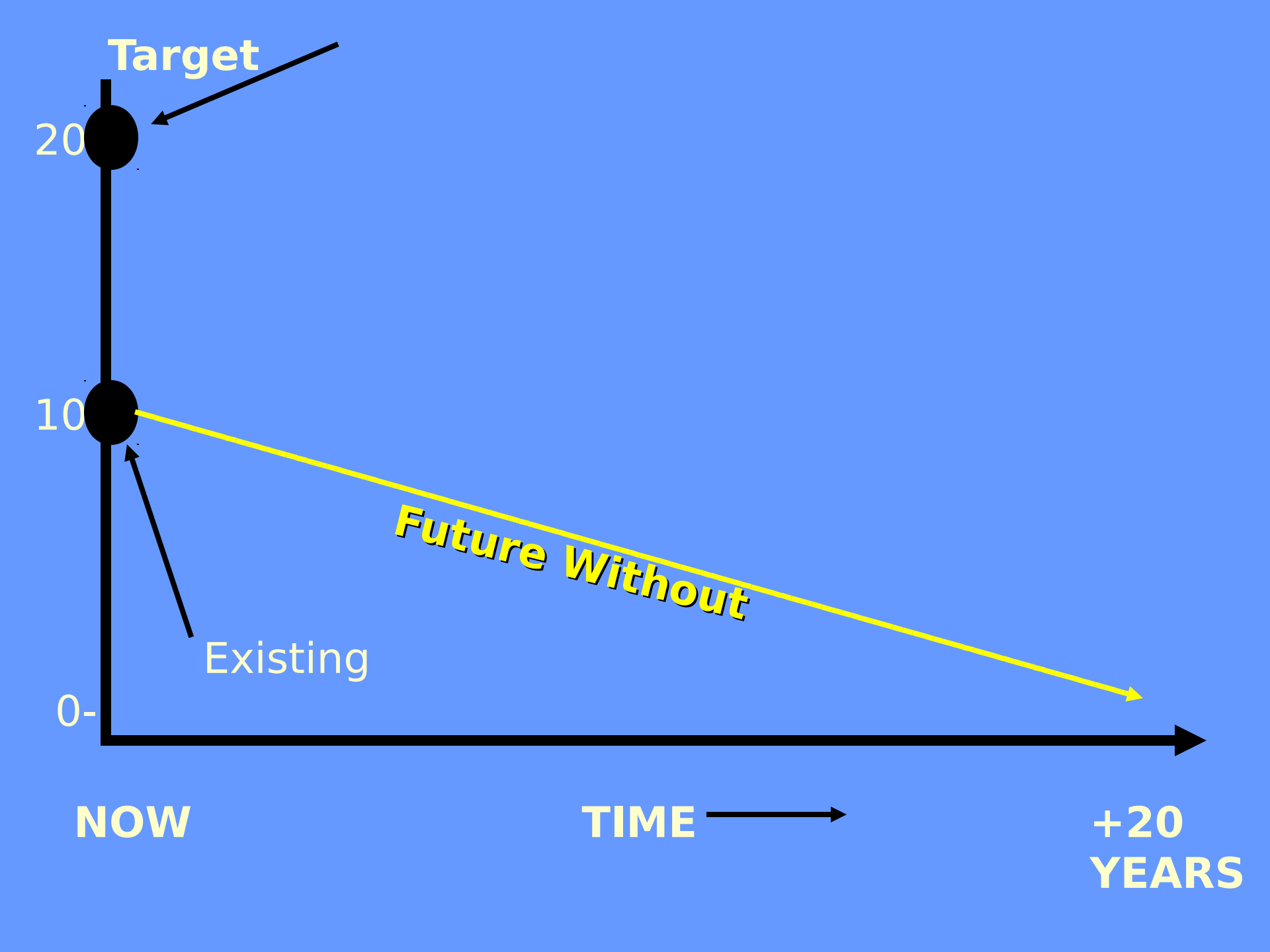
	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE	TARGET	HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	FUTURE WITH CONDITION
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE				WITH AND WITHOUT ANALYSIS	
HOME ADDRESS			**BEFORE AND…**		**…AFTER ANALYSIS**
CAR MODEL					

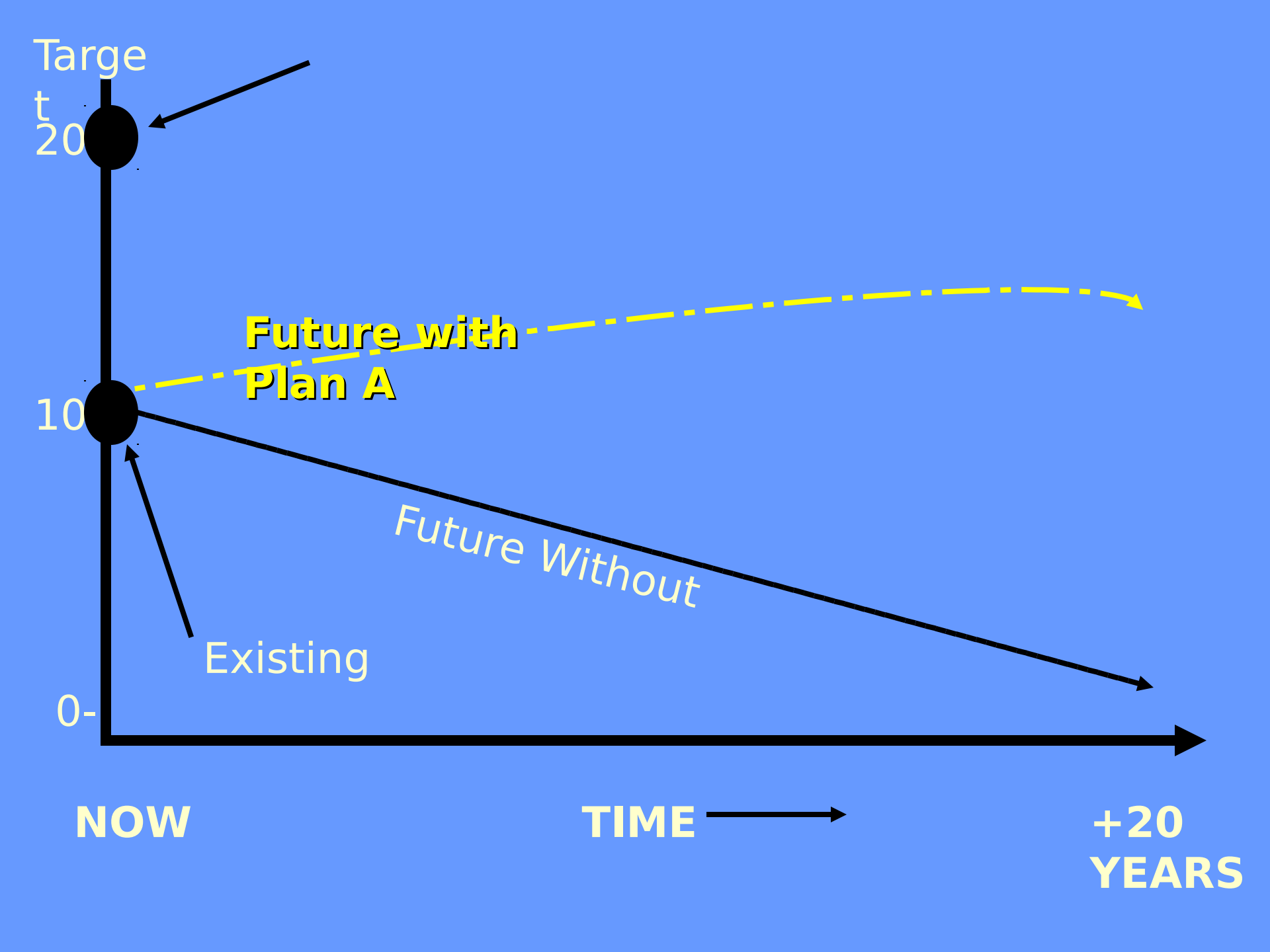
	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE	TARGET	HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	FUTURE WITH CONDITION
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE				WITH AND WITHOUT ANALYSIS	
HOME ADDRESS			BEFORE AND…		…AFTER ANALYSIS
CAR MODEL	**GAP…**				**…ANALYSIS**

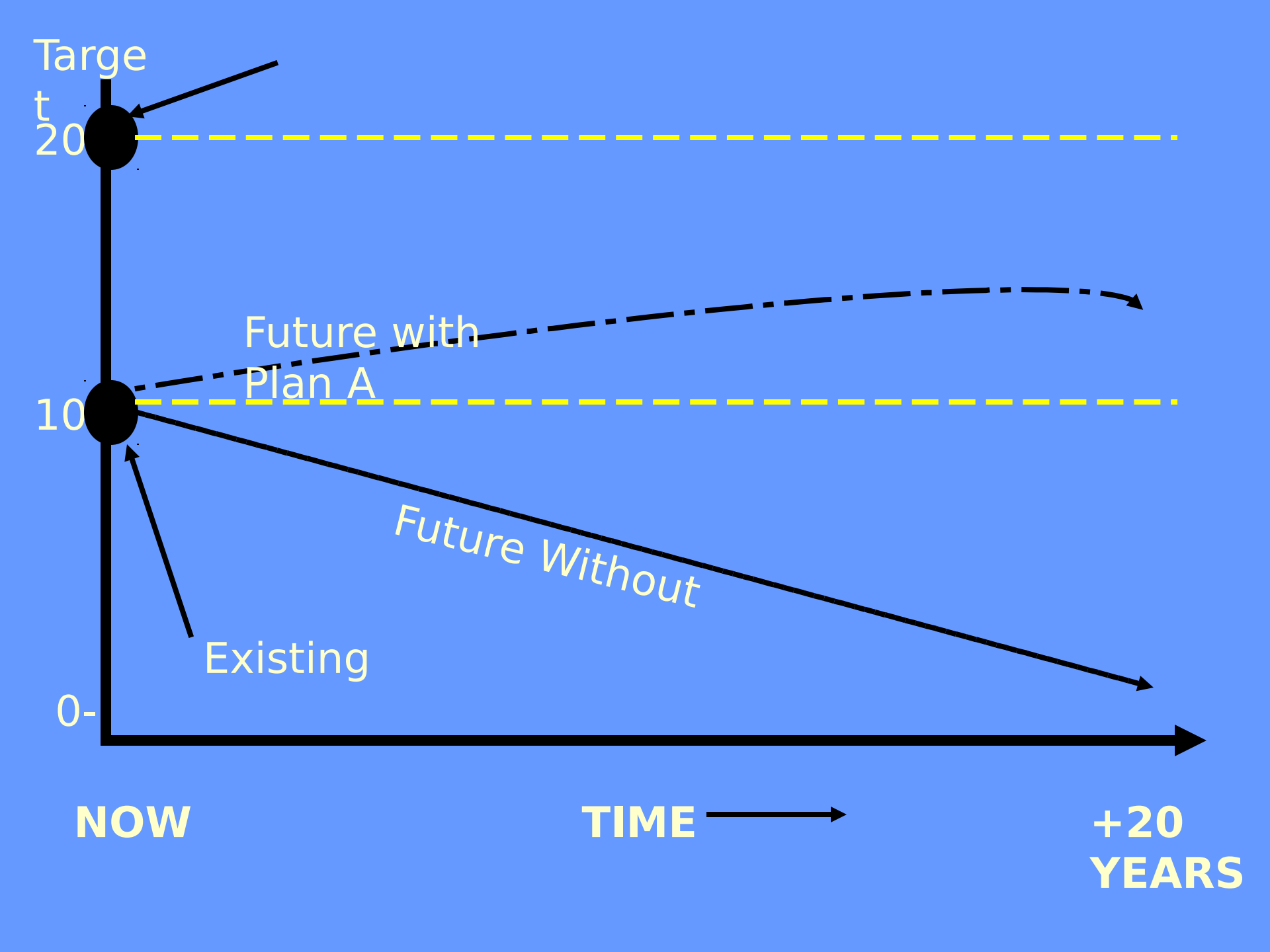

20
10
0
NOW
TIME
+20
YEARS

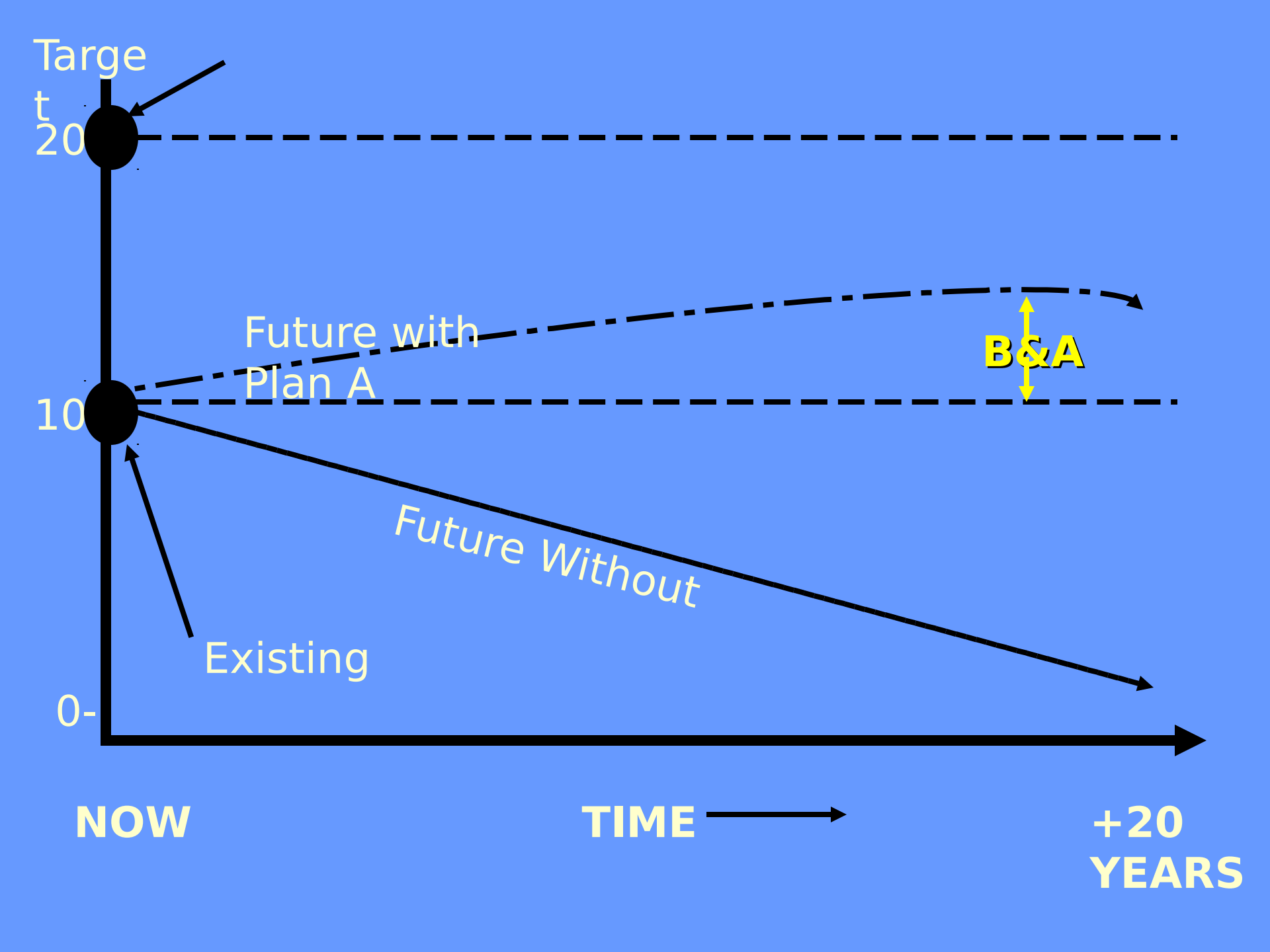

20
10
0
Existing
NOW
TIME
+20
YEARS

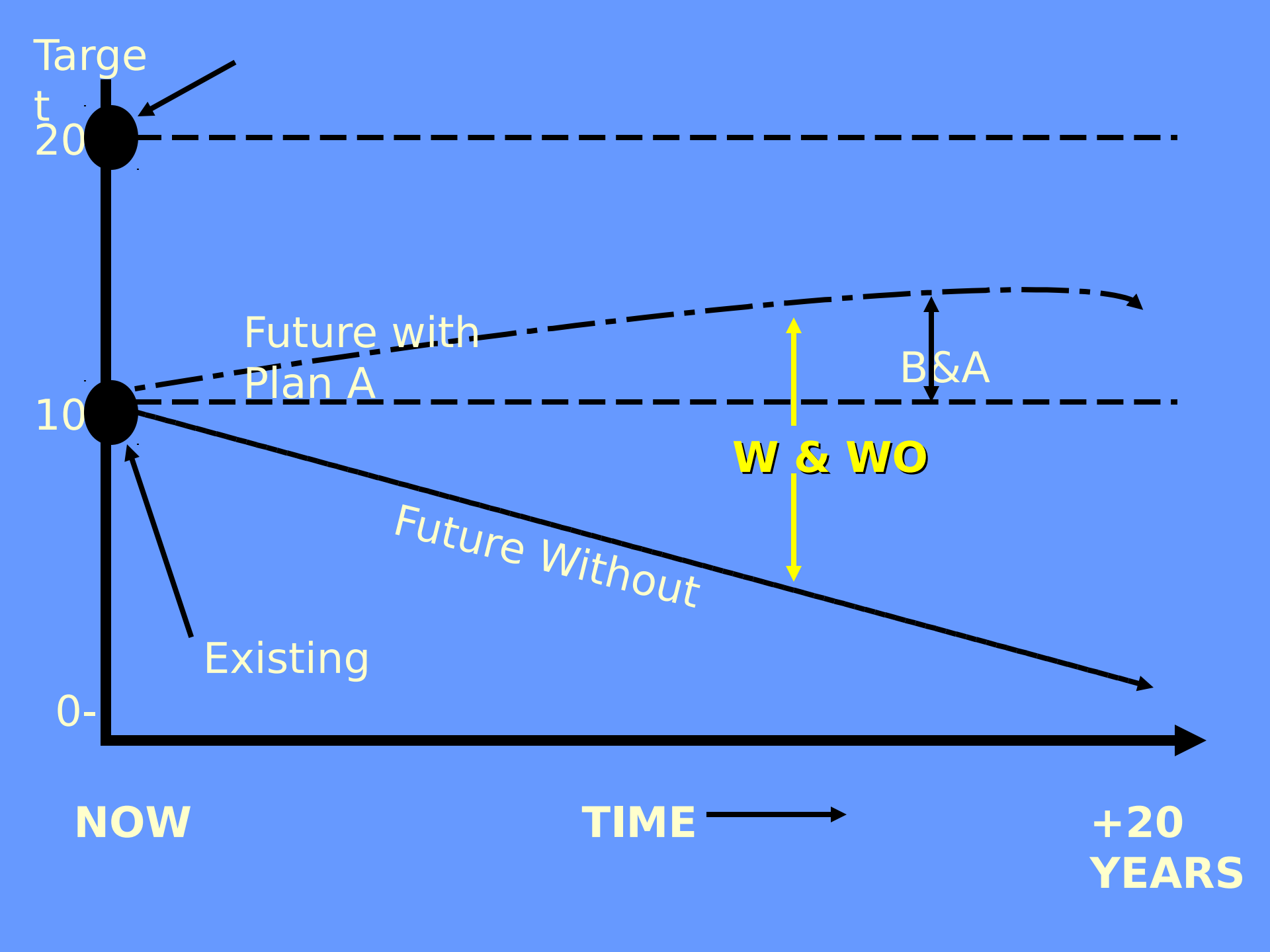

Target
20-
10
Existing
0-
NOW
TIME
+20
YEARS

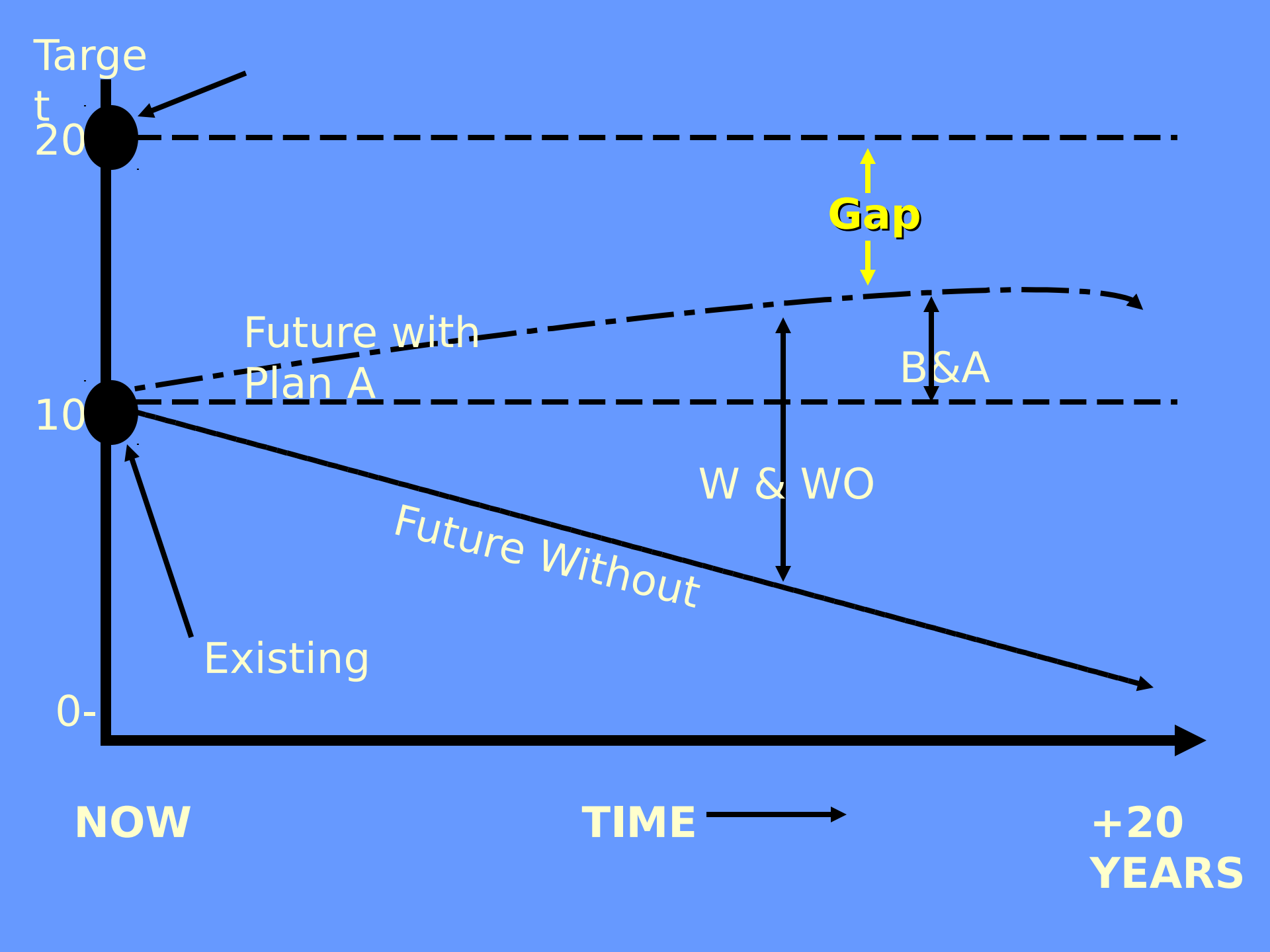

Target
20
10
0-
Future Without
Existing
NOW
TIME
+20
YEARS

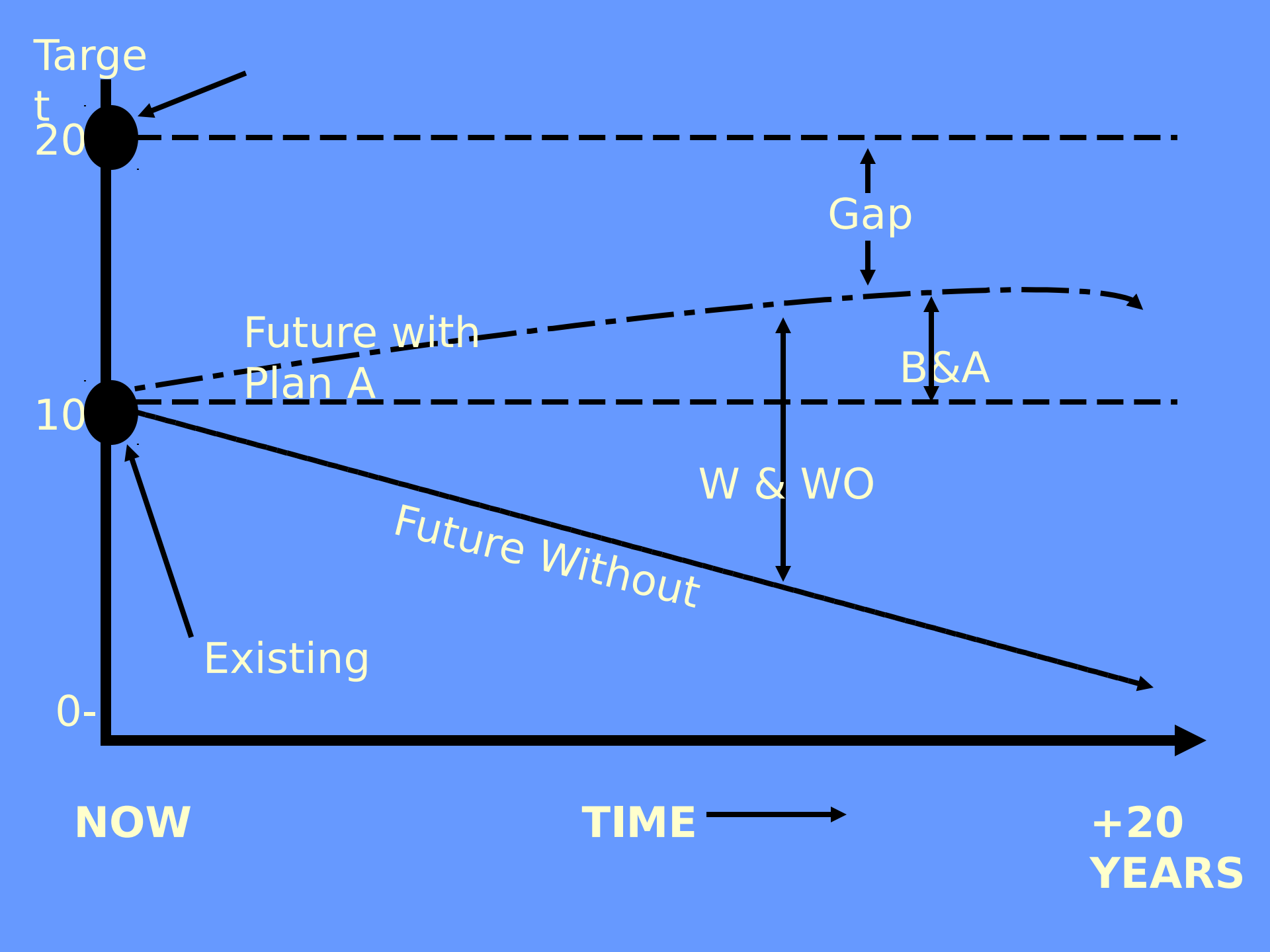

Target
20
Future with
Plan A
10
Future Without
Existing
0-
NOW
TIME
+20
YEARS


Target
20
Future with
Plan A
10
Future Without
Existing
0-
NOW
TIME
+20
YEARS


Target
20
Future with
Plan A
B&A
10
Future Without
Existing
0-
NOW
TIME
+20
YEARS


Target
20
Future with
Plan A
B&A
10
W & WO
Future Without
Existing
0-
NOW
TIME
+20
YEARS

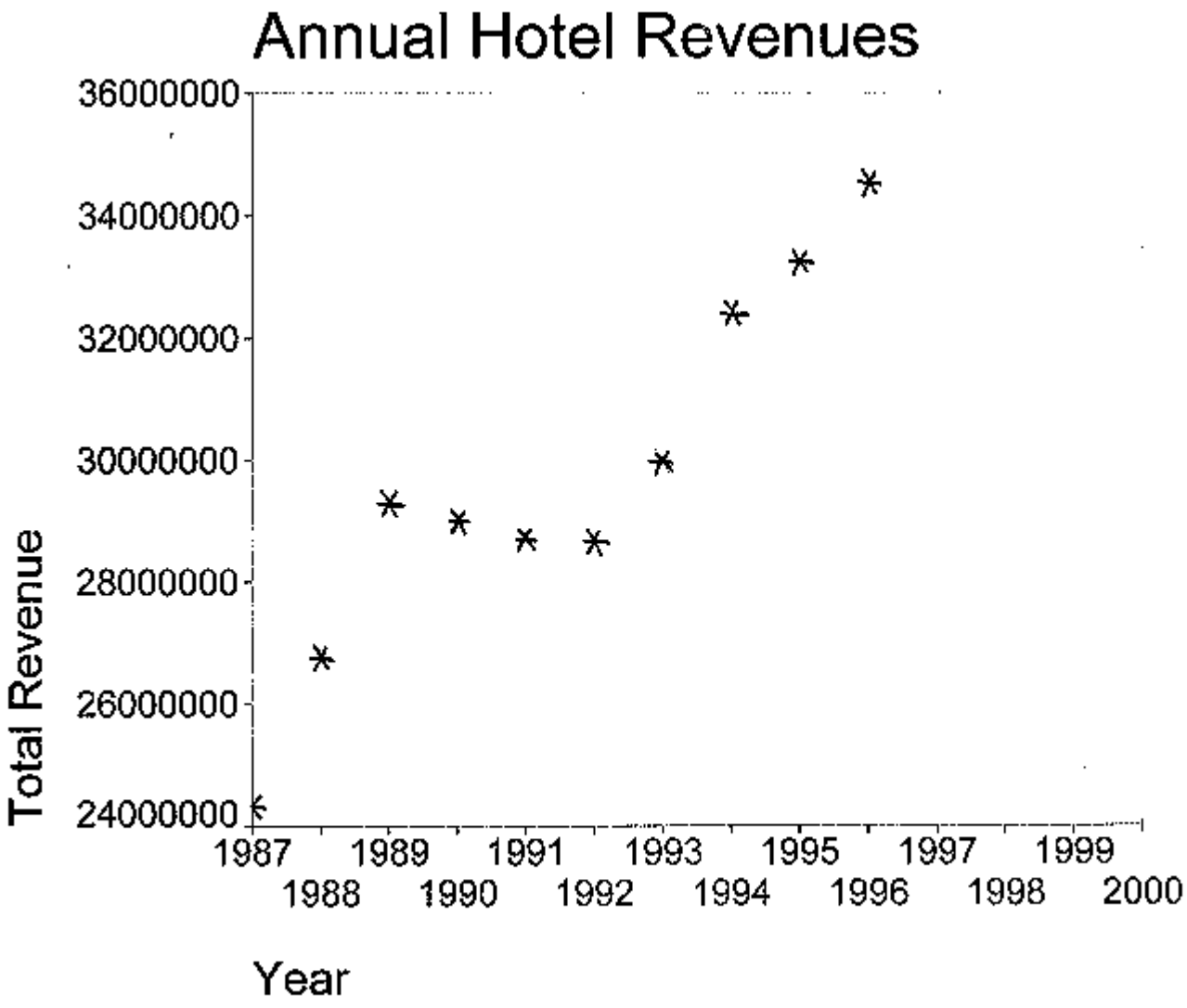

Target
20
10
0-
Gap
Future with
Plan A
B&A
W & WO
Future Without
Existing
NOW
TIME
+20
YEARS

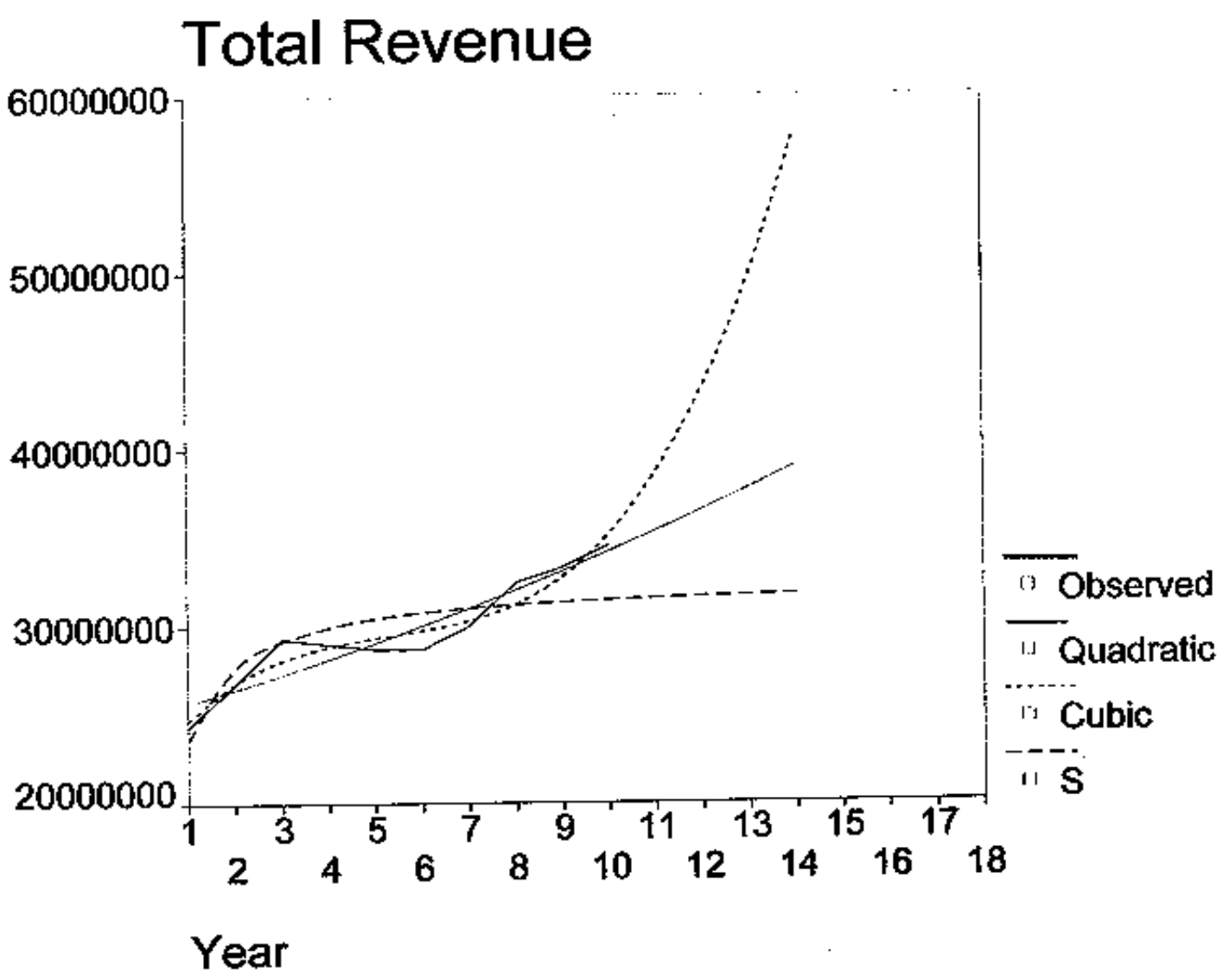

Target
20
Gap
Future with
Plan A
B&A
10
W & WO
Future Without
Existing
0-
NOW
TIME
+20
YEARS

INVENTORY AND FORECAST

- Data and information
- Conditions
- Comparisons
- Uncertainty

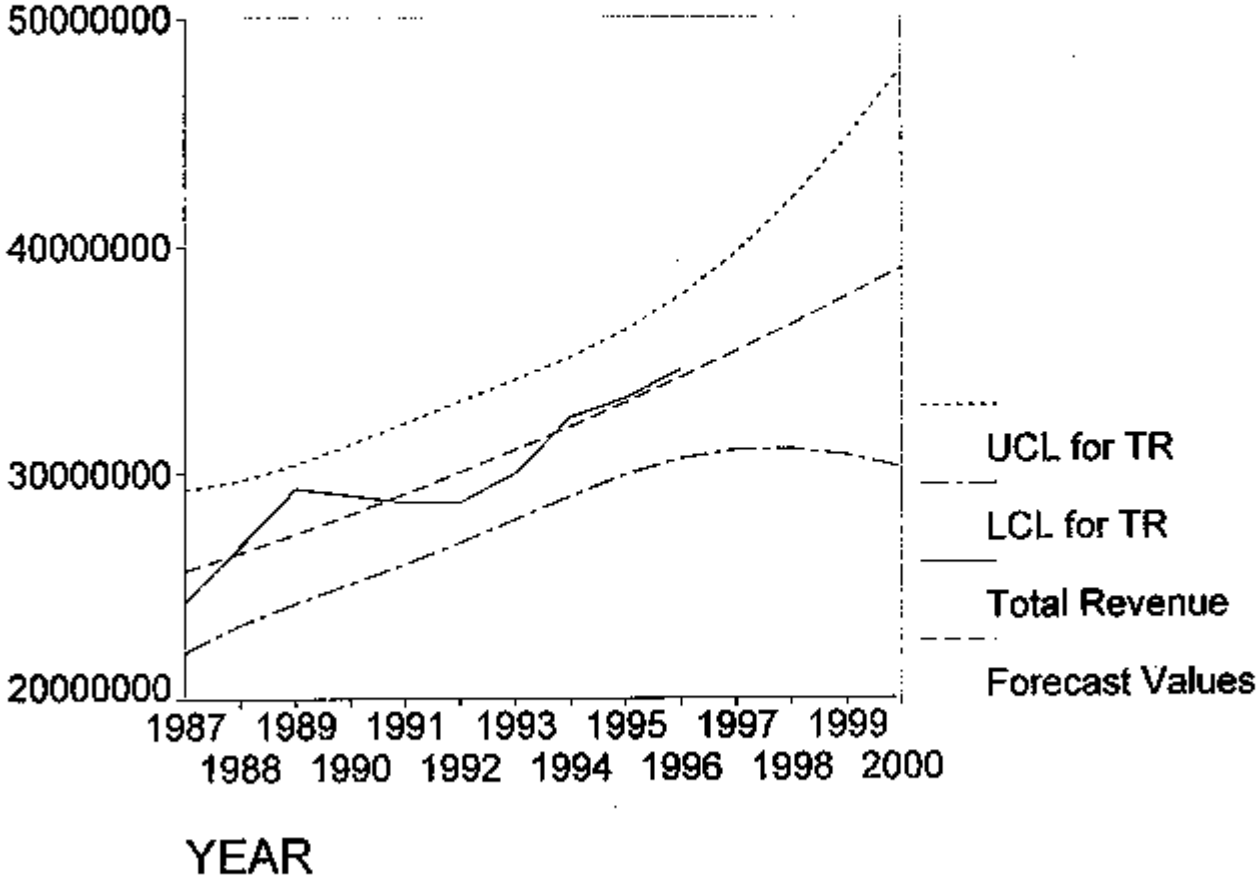
	COLUMN 1 DREAM	COLUMN 2 1993	COLUMN 3 2003	COLUMN 4 2013	COLUMN 5 2013
AGE	TARGET	HISTORIC CONDITION	EXISTING CONDITION	FUTURE WITHOUT CONDITION	FUTURE WITH CONDITION
FIRST NAME					
LAST NAME					
HAIR COLOR					
JOB TITLE					
HOME ADDRESS					
CAR MODEL					


Annual Hotel Revenues
36000000
34000000
32000000
30000000
28000000
26000000
24000000
Total Revenue
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
Year


Total Revenue
60000000
50000000
40000000
30000000
20000000
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Year
Observed
Quadratic
Cubic
S

Sample Error Uncertainty

Revenue Forecast



YOUR STUDY INVENTORY AND FORECAST

	1993 HISTORIC CONDITION	2003 EXISTING CONDITION	2013 FUTURE WITHOUT CONDITION	2013 FUTURE CONDITION WITH PLAN "A"	2013 FUTURE CONDITION WITH PLAN "B"
POPULATION					
FLOOD DAMAGES					
COMMODITY TONS					
ACRES OF HABITAT					
USER-DAY DEMAND					
WATER DEMAND					
Etc.					

Without condition = Without any action to solve the problem at hand.

- A good without condition is essential to a good decision.

- Doing nothing is always the default action. Any plan must be better than doing nothing.

INVENTORY AND FORECASTING CONDITIONS WHAT'S THE POINT?

- Information - not data - is important.
- Collect only the information you need; use the information you collect.
- The future is usually different from the present.
- "Without" - or "No Action" - doesn't necessarily mean no change.
- Some things can be forecasted with more certainty than others.
- Assumptions matter very, very much.

PLANNING PROCESS